

Jason S. Hartley, Esq. (SBN 192514)
Jason M. Lindner, Esq. (SBN 211451)
HARTLEY LLP
101 West Broadway, Suite 820
San Diego, California 92101
Tel: (619) 400-5822
hartley@hartleyllp.com
lindner@hartleyllp.com

Attorneys for Plaintiff

**UNITED STATES DISTRICT COURT
NORTHERN DISTRICT OF CALIFORNIA**

STEVEN SHATTUCK,

Plaintiff,

vs.

SAS INSTITUTE, INC., IDEAS, INC.,
CHOICE HOTELS INTERNATIONAL, INC.,
WYNDHAM HOTELS & RESORTS, INC.,
HILTON WORLDWIDE HOLDINGS, INC.,
FOUR SEASONS HOTELS AND RESORTS
US, INC., OMNI HOTELS MANAGEMENT
CORP., HYATT HOTEL CORPORATION,

Defendants.

Case No:

COMPLAINT FOR:

(1) Violation of Sherman Act, § 1

CLASS ACTION

DEMAND FOR JURY TRIAL

Plaintiff Steven Shattuck brings this action on behalf of himself and a class of all persons similarly situated, against Defendants SAS Institute Inc. and Ideas Inc. (collectively, the “RMS Defendants”) and Choice Hotels International Inc., Wyndham Hotels & Resorts, Inc., Hilton Worldwide Holdings, Inc., Four Seasons Hotels And Resorts US Inc., Omni Hotels & Resorts, and Hyatt Hotel Corporation (collectively, the “Hotel Defendants” or “Hotels”, collectively with RMS Defendants, “Defendants”), for damages and injunctive relief for violations of Section 1 of the Sherman Act, 15 U.S.C. § 1, and allege as follows:

I. NATURE OF THE ACTION

1. The Hotel Defendants, among the largest hotel operators in the United States, are horizontal competitors in the rental of hotel guest rooms. Rather than compete on price, the Hotels agreed, conspired, and/or combined to fix, raise, and stabilize hotel room rental prices nationally and in the Relevant Sub-markets in violation of Section 1 of the Sherman Act (15 U.S.C. § 1).¹ The Hotels effected their conspiracy by, among other actions, sharing a pricing algorithm developed by the RMS Defendants.

2. To effectuate the conspiracy, each Hotel Defendant agreed to provide IDEaS with a continuous stream of its non-public, competitively sensitive price and occupancy information in or near real time, knowing that each of the other Hotels is doing the same. This collusive pooling of detailed confidential information affords IDEaS a clear, continuous and comprehensive understanding of competitive conditions in the Relevant Sub-markets. This collected knowledge includes non-public information such as the price paid by guests for rooms, the number of available rooms of each type, whether any consumers attempted to book a

¹ The Relevant Sub-markets are the markets for hotel room rentals in the following Metropolitan Statistical Areas (MSA): the Atlanta–Sandy Springs–Roswell, GA MSA; the Baltimore–Columbia–Towson, MD MSA; the Boston–Cambridge–Newton, MA–NH MSA; the Chicago–Naperville–Elgin, IL–IN–WI MSA; the Dallas–Fort Worth–Arlington, TX MSA; the Houston–Pasadena–The Woodlands, TX MSA; the Las Vegas–Henderson–North Las Vegas, NV MSA; the Los Angeles–Long Beach–Anaheim, CA MSA; the Miami–Fort Lauderdale–West Palm Beach, FL MSA; the New Orleans–Metairie, LA MSA; the New York–Newark–Jersey City, NY–NJ MSA; the Orlando–Kissimmee–Sanford, FL MSA; the Phoenix–Mesa–Chandler, AZ MSA; the San Diego–North County–Chula Vista, CA MSA; the San Francisco–Oakland–Fremont, CA MSA; the Seattle–Tacoma–Bellevue, WA MSA; and the Washington–Arlington–Alexandria, DC–VA–MD–WV MSA.

1 room that was no longer available, and room rates not disclosed to the public. IDeaS feeds this
2 confidential information into its pricing algorithm to generate supra-competitive pricing
3 recommendations for each Hotel Defendant, which the Hotels then nearly always implement
4 without any adjustment. Each Hotel knows the others are also charging guests the same supra-
5 competitive pricing because IDeaS tells them so, and because every business knows that the
6 only way it can consistently raise prices above a competitive level is that its horizontal
7 competitors are also raising their prices above the competitive level.

8 3. By collectively sharing their sensitive confidential pricing and occupancy
9 information with IDeaS to generate supra-competitive prices, the Hotel Defendants are able to
10 achieve the same prices they would have agreed to had they secretly met in a back room and
11 directly exchanged their information. When the telephone was new technology, conspirators
12 used it to facilitate price fixing conspiracies. When email was the new technology, conspirators
13 used it to facilitate price fixing conspiracies. Now conspirator Defendants here are using the
14 latest technology in the form of sophisticated software to facilitate their price fixing conspiracy.
15 In other words, Defendants are operating a classic horizontal conspiracy made possible by
16 modern technology. As such, it is *per se* illegal.

17 4. Defendants' conspiracy is riding the wave of algorithm-based price sharing
18 powered by advances in computing technology that sellers of goods and services are exploiting
19 to fix prices in a growing number of industries. These technological developments have enabled
20 companies such as the RMS Defendants to develop algorithms with power and reach far
21 surpassing what was possible even a decade ago. Scholars and enforcement officials have been
22 predicting for years that the day would soon arrive when competitors could effectuate a
23 horizontal conspiracy by outsourcing their pricing decisions to a third-party algorithm with
24 access to the competitors' data. As IDeaS trumpets on its website, that day has arrived.
25 "Transform data into revenue" it proclaims.²

26 5. Testimonials tell the story: "IDeaS has an insane ability to quickly respond to
27 changes in a dynamic market. There's no one human that can physically do what this product
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² <https://ideas.com/>.

1 can do—there’s so much that goes into the algorithm. Revenue managers should simply believe
2 in the tool, have faith in it, and they will achieve results that exceed their expectations.”³

3 6. In addition, IDeaS conducts user-only events, summits, and meetings with the
4 co-conspirator hotel operators, which it represents are “... to showcase how IDeaS consolidates
5 hotel data to deliver total profit optimization.”⁴ IDeaS bestows awards to its clients at these
6 meetings for the stated purpose of “honoring individuals for their collaboration, partnership,
7 bold thinking and mutual support of progress and innovation.”⁵

8 7. The Hotel Defendants engage in these actions knowing (i) which of their
9 competitors are participating in the conspiracy; (ii) that IDeaS is collecting similar confidential
10 data from each participating competitor to make its pricing recommendations; (iii) that these
11 competitors are adopting IDeaS’ pricing recommendations; and (iv) the more faithfully each
12 competitor adopts IDeaS’ pricing recommendations, the more revenue and profit each
13 competitor will reap. Not only does IDeaS prominently highlight these facts in marketing
14 materials, but it also proves them by sharing competitively sensitive competitor data directly
15 with users.

16 8. Defendants’ conspiracy has succeeded. By agreeing to provide IDeaS with non-
17 public data and implementing the resulting price recommendations, the Hotel Defendants have
18 been able to increase hotel room rates significantly above the competitive level in the Relevant
19 Sub-markets. Based on publicly available data, each of the Hotels is currently charging the
20 highest or near-highest average rates for hotel rooms in its history despite a lack of
21 corresponding increase in booking demand.

22 9. Defendants’ conspiracy has harmed competition and consumers. By agreeing to
23 use a shared algorithm to set prices, the Hotel Defendants have replaced independent decision-
24 making with cooperative price-fixing, thereby eliminating or severely impairing market
25 competition. This collusion has artificially inflated hotel room rates to supra-competitive levels,

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27 ³ <https://ideas.com/about/partners>.

28 ⁴ <https://www.hospitalitynet.org/news/4111666.html#:~:text=insights%20and%20best,total%20profit%20optimization>.

⁵ <https://ideas.com/client-award-recipients>.

enabling the Hotel Defendants to overcharge Plaintiff and Class members, thereby causing them economic harm and antitrust injury.

10. In sum, by agreeing to use the pricing recommendations generated by the shared algorithm, the Hotel Defendants have effected a conspiracy to outsource their independent pricing decision-making to a single, common pricing manager—IdeaS, which has willingly facilitated and enforced the conspiracy. Consumers have been harmed as a result, paying artificially high prices for hotel rooms.

11. Defendants’ conspiracy is a price-fixing combination in violation of Section 1 of the Sherman Act.

II. PARTIES

12. Plaintiff Steven Shattuck is a resident of Fort Collins, Colorado. Mr. Shattuck has rented hotel rooms from at least Hyatt Hotels in at least one of the Relevant Sub-markets during the Class Period. He paid supra-competitive prices for these room rentals as a result of the antitrust violations alleged here.

13. Defendant SAS Institute Inc. (“SAS”), which is incorporated in and has its principal place of business in North Carolina, SAS the parent company of IdeaS, which it acquired in 2008. It is the developer of the analytics used by IdeaS’ revenue management system (“RMS”).

14. Defendant Ideas Inc. (“IdeaS”), a Delaware corporation having its principal place of business in Bloomington, Minnesota, is a subsidiary of SAS. IdeaS is the dominant provider of revenue management and profit optimization software and services for hotel operators. Its software has been implemented at more than 30,000 properties worldwide, including properties of the Hotel Defendants in each of the Relevant Sub-markets.

15. Defendant Hilton Worldwide Holdings Inc. (“Hilton”), a Delaware corporation, is a multinational hospitality company having its principal place of business in McLean, Virginia. Hilton operates hundreds of hotel properties in the United States, including properties in each of the Relevant Sub-markets. Throughout the Class Period, it has provided IdeaS with non-public, competitively sensitive, real-time pricing and occupancy data. In return, Hilton

1 receives from IDEaS the same types of information provided to IDEaS by its competitors, either
2 in the same form or data fed into IDEaS' algorithm to create pricing recommendations to Hilton
3 and the other Hotel Defendants.

4 16. Defendant Choice Hotels International Inc. ("Choice"), a Delaware corporation,
5 is a hospitality company having its principal place of business in North Bethesda, Maryland.
6 Choice operates thousands of hotel properties in the United States, including several in each of
7 the Relevant Sub-markets. Throughout the Class Period, Choice has provided IDEaS with non-
8 public, competitively sensitive, real-time pricing and occupancy data. In return, Choice receives
9 from IDEaS the same types of information provided to IDEaS by its competitors, either in the
10 same form or as data fed into IDEaS' algorithm to create pricing recommendations to Choice
11 and the other Hotel Defendants.

12 17. Defendant Wyndham Hotels & Resorts, Inc. ("Wyndham"), a Delaware
13 corporation having its principal place of business in Parsippany, New Jersey. Wyndham
14 operates hundreds of hotel properties in the United States, including properties in each Relevant
15 Sub-market. Throughout the Class Period, Defendant Wyndham has provided IDEaS with non-
16 public, competitively sensitive, real-time pricing and occupancy data. In return, Wyndham
17 receives from IDEaS the same types of information provided to IDEaS by its competitors, either
18 in the same form or as data fed into IDEaS' algorithm to create pricing recommendations to
19 Wyndham and the other Hotel Defendants.

20 18. Defendant Four Seasons Hotels and Resorts US Inc. ("Four Seasons"),
21 incorporated and having its principal place of business in Delaware, is a subsidiary of Four
22 Seasons Hotels and Resorts. Four Seasons operates more than 40 hotels in the United States,
23 including at least one in each of the Relevant Sub-markets. Throughout the Class Period,
24 Defendant Four Seasons has provided IDEaS with non-public, competitively sensitive, real-time
25 pricing and occupancy data. In return, Four Seasons receives from IDEaS the same types of
26 information provided to IDEaS by its competitors, either in the same form or as data fed into
27 IDEaS' algorithm to create pricing recommendations to Four Seasons and the other Hotel
28 Defendants.

1 19. Defendant Omni Hotels Management Corp. (“Omni”), incorporated and having
2 its principal place of business in Dallas, Texas, is wholly owned by TRT Holdings, Inc. Omni
3 operates approximately 50 hotels in the United States. Throughout the Class Period, Defendant
4 Omni has provided IDEaS with non-public, competitively sensitive, real-time pricing and
5 occupancy data. In return, Omni receives from IDEaS the same types of information provided to
6 IDEaS by its competitors, either in the same form or as data fed into IDEaS’ algorithm to create
7 pricing recommendations to Omni and the other Hotel Defendants.

8 20. Defendant Hyatt Hotel Corporation (“Hyatt”) is a Delaware corporation having
9 its principal place of business in Chicago, Illinois. Hyatt operates approximately 791 hotels in
10 the United States, including multiple hotels in each of the Relevant Sub-markets. Throughout
11 the Class Period, Defendant Hyatt provided IDEaS with non-public, competitively sensitive,
12 real-time pricing and occupancy data. In return, Omni receives from IDEaS the same types of
13 information provided to IDEaS by its competitors, either in the same form or as data fed into
14 IDEaS’ algorithm to create pricing recommendations to Hyatt and the other Hotel Defendants.

15 21. Defendants’ illegal actions are authorized, ordered, or performed by their
16 directors, officers, managers, agents, employees, or representatives in the course of their
17 employment while actively managing Defendants’ affairs.

18 22. Each Defendant has also engaged in these illegal actions in concert with and
19 through its subsidiaries, divisions, affiliates and agents, with each acting as an agent or joint
20 venturer of the others and under the actual or apparent authority of parent entities, principals
21 and controlling parties.

22 23. Certain hotel operators not named as defendants in this Complaint have also
23 participated as co-conspirators in the same illegal conduct through their use of IDEaS’ RMS and
24 pricing algorithm and have acted and made statements in furtherance of the Defendants’
25 collusion. These co-conspirators include Accor S.A. (“Accor”), a multinational hospitality
26 company operating more than 40 hotels in the United States Defendants are jointly and
27 severally liable for the acts of their co-conspirators, whether or not they are named as
28 defendants in this Complaint.

III. JURISDICTION AND VENUE

24. This Court has subject matter jurisdiction under 28 U.S.C. §§ 1331 and 1337, as this action arises out of Section 1 of the Sherman Act (15 U.S.C. § 1) and Sections 4 and 16 of the Clayton Act (15 U.S.C. §§ 15 and 26).

25. This Court has personal jurisdiction over Defendants under Section 12 of the Clayton Act (15 U.S.C. § 22), Federal Rule of Civil Procedure 4(h)(1)(A), and California's long-arm statute.

26. Defendants, directly or through their divisions, subsidiaries, predecessors, agents, or affiliates, may be found in and transact business in the forum state, including the rental of hotel guest rooms.

27. Defendants, directly or through their divisions, subsidiaries, predecessors, agents, or affiliates, engage in interstate commerce in the rental of hotel guest rooms.

28. Venue is proper in this District pursuant to Section 12 of the Clayton Act (15 U.S.C. § 22) and the federal venue statute (28 U.S.C. § 1391), because one or more Defendants maintain business facilities, have agents, transact business, and are otherwise found within this District, and certain unlawful acts alleged herein were performed and had effects within this District.

IV. CLASS ACTION ALLEGATIONS

29. Plaintiff brings this action on behalf of himself and all others similarly situated pursuant to sections 23(a), 23(b)(2), and 23(b)(3) of Federal Rule of Civil Procedure 23 ("Rule 23"), seeking damages as well as equitable and injunctive relief for the following class:

All persons and entities in the United States and its territories who rented Hotel Defendants' hotel guest rooms in the Relevant Sub-markets during the period of April 26, 2020, until the Defendants' unlawful conduct and its anticompetitive effects cease (the "Rental Class").

30. Plaintiff also brings this action on behalf of himself and all others similarly situated pursuant to Rule 23(a) and (b)(2), seeking equitable and injunctive relief for the following class:

All persons and entities in the United States and its territories who rented Hotel Defendants' or co-conspirators' hotel guest rooms in the United States during the

1 period of April 26, 2020, until the Defendants' unlawful conduct and its
2 anticompetitive effects cease (the "National Class").

3 31. Specifically excluded from the Classes are Defendants; the officers, directors, or
4 employees of any Defendant; any entity in which any Defendant has a controlling
5 interest; and any affiliate, legal representative, heir or assign of any Defendant. Also
6 excluded from the Classes are any federal, state, or local governmental entities, any
7 judicial officer presiding over this action and the members of their immediate family
8 and judicial staff, any juror assigned to this action, and any co-conspirator identified
9 in this action.

10 32. The Classes satisfy Rule 23's requirements for certification, specifically:

11 a. Class Identity: The members of the Classes are readily identifiable by use
12 of existing records.

13 b. Numerosity: Class members are so numerous and geographically
14 dispersed that joinder is impracticable. There are at least tens of thousands of
15 members in the Classes.

16 c. Typicality: Plaintiff's claims are typical of the claims of Class members
17 because Plaintiff has paid the Hotel Defendants overcharges for hotel room
18 rentals, just as the Class members have.

19 d. Commonality: Defendants have acted in a manner that applies generally
20 to Plaintiff and Class members. Each Class member has been similarly harmed
21 by Defendants' unlawful conduct. Questions of law and fact common to Plaintiff
22 and the Classes include:

23 i. Whether Defendants have entered into a contract, combination,
24 conspiracy, or common understanding to artificially increase hotel
25 room rental prices and suppress the supply of hotel rooms in the
26 Relevant Sub-markets;

27 ii. Whether Defendants' conduct artificially has increased prices for
28 hotel room rentals and suppressed the supply of available hotel rooms
in the Relevant Sub-markets;

- iii. Whether Defendants' conduct violates Section 1 of the Sherman Act;
- iv. Whether Plaintiff and Class members have been injured by Defendants' conduct;
- v. Whether Defendants' conduct is a per se violation or should instead be analyzed under a quick look or the rule of reason.

33. Predominance: Questions of law and fact common to all Class members predominate over any questions that may affect Class members individually.

34. Adequacy: Plaintiff will fairly and adequately protect the interests of the Classes because Plaintiff's interests are aligned with, and not antagonistic to, those of the other members of the Classes, and because Plaintiff has retained counsel competent and experienced in the prosecution of complex antitrust class actions to represent himself and the Classes.

35. Superiority and Manageability: A class action is superior to all other available methods for the fair and efficient adjudication of Plaintiff's claims because joinder of all Class Members is impracticable. Prosecution of separate actions by individuals would result in repetitive adjudication of common questions of fact and law, creating a risk of inconsistent or varying adjudications that would establish incompatible standards of conduct for Defendants. Further, there will be no difficulty in managing and adjudicating Plaintiff's claims as a class action.

V. FACTUAL BACKGROUND

A. Competitive Hotel Room Rental Markets

36. In a competitive hotel room rental market, each hotel operator independently prices rooms based on its own analysis of relevant data. Room rates are typically based on a variety of factors, including location, seasonality, and demand. Given the relative fungibility of hotel rooms, particularly when grouped by class, hotels generally compete on price, by reducing room rates or offering other valuable concessions to guests.

37. This competition disciplines rental prices and delivers higher quality for consumers. In a competitive market, if a hotel operator prices rooms above the competitive level, then consumers will elect to stay at the competing properties with lower rates. Therefore,

absent collusion, a hotel operator would lose business if its room prices exceeded the competitive level and face the threat of being forced out of the market if its higher pricing persisted long enough.

38. Defendants have subverted these competitive market dynamics by colluding on hotel room prices, leading to supra-competitive room rates. The Hotel Defendants can afford to price rooms in this manner because they know their co-conspirator Hotels will not undercut the higher prices.

B. IDeaS' Pricing Recommendations Destroy Competitive Pricing.

39. IDeaS is the world's leading provider of RMS for hotel operators. Its flagship product, G3 RMS, is the hotel industry's leading revenue management system, daily analyzing over 100 million pricing and booking decisions for over 1.6 million hotel rooms.

40. According to IDeaS, G3 RMS "delivers scientific pricing and inventory control decisions at the room type and rate code level to drive optimal revenue performance across segments. Powered by SAS High Performance Analytics, G3 RMS automates pricing, restrictions, and overbooking decisions to maximize RevPAR [revenue per available room] and helps you focus on what's important."⁶ Achieving this productivity requires users of G3 RMS to outsource their pricing decisions to IDeaS. IDeaS' other RMS solutions operate the same way. In short, users surrender their pricing autonomy to IDeaS' in exchange for higher market pricing and profits.

41. IDeaS also offers individualized RMS solutions. For example, IDeaS partnered with Choice to develop ChoiceMax, a mobile-first RMS used by Choice hotel managers and powered by IDeaS' data and algorithm.⁷

42. In addition to pricing recommendations, IDeaS' RMS provides users with other data points, such as competitors' real-time pricing and pricing changes, occupancy rates and forecasts, and unit characteristics that hotel operators use when setting prices. Like the pricing

⁶ <https://ideasservices.wpenginepowered.com/wp-content/uploads/2020/06/IDeaS-G3-RMS-Brochure-EE.pdf>.

⁷ <https://media.choicehotels.com/2022-04-18-Choice-Hotels-International-Announces-Collaboration-with-IDeaS-to-Empower-Franchisee-Revenue-Growth>

recommendations, this information incorporates competitively sensitive, non-public information collected from all of IDEaS' hotel participants.

43. IDEaS' RMS uses an algorithm to calculate pricing recommendations. IDEaS has steadily improved the algorithm's ability to inflate prices by harnessing its intrinsic capability to continually learn and correct itself in the course of processing user data.

44. According to an IDEaS business partner, "IDEaS has an insane ability to quickly respond to changes in a dynamic market. There's no one human that can physically do what this product can do—there's so much that goes into the algorithm. Revenue managers should simply believe in the tool, have faith in it, and they will achieve results that exceed their expectations."⁸

45. As both the FTC and DOJ have recognized, algorithms can be used to fix prices more easily and effectively than traditional methods because of their capacity to process huge quantities of information far more quickly than human analysts. Algorithms also minimize the incentive for cartel members to deviate from its fixed prices, not only by enhancing the ability to optimize cartel gains but also by closely monitoring Hotel Defendants' adherence to the algorithmic pricing and identifying in real time any failure to comply.⁹

46. IDEaS' RMS is significantly more harmful to competition than other sources of data. For example, most large hotel operators pay a relatively nominal fee for so-called STR Reports. These reports, distributed to users on a weekly or monthly basis, are benchmarking tools that use historical data to compare a hotel's performance to a competitive set of hotels. Unlike the data generated by IDEaS' RMS, the STR data is anonymized, encrypted and aggregated, disclosing no identifiable data of individual hotel operators. Also unlike IDEaS' RMS, their reports do not provide pricing recommendations, instead, Hotels look to STR Reports as a source of data to inform their pricing while retaining independent decision-making.

47. Some hotels also use platforms like Demand360, which provides demand

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<https://ideas.com/about/partners/#:~:text=%E2%80%9CIDEaS%20has%20an%20insane%20ability%20to%20quickly%20respond,they%20will%20achieve%20results%20that%20exceed%20their%20expectations.%E2%80%9D>

⁹ See, e.g., Salil K. Mehra, *Price Discrimination-Driven Algorithmic Collusion: Platforms for Durable Cartels*, 26 Stan. J. L. & Bus. Fin. 171, 177 (2021).

forecasts, also based solely on anonymized, aggregated competitor data and devoid of pricing recommendations. Again, participating hotels can use Demand360's demand forecasts to inform their pricing strategies, but, in contrast to IDeaS' RMS, they do not replace independent pricing decisions by hotels.

1. IDeaS' RMS is Designed for Hotel Operators to Outsource Pricing Decisions.

48. A core feature of IDeaS' RMS is its automation of pricing decisions for the Hotel Defendants. This reliably provides the Hotels with supra-competitive pricing, thus eliminating the need for them to communicate directly with each other. In other words, it allows hotel operators, which are horizontal competitors, to entirely delegate pricing decisions to IDeaS. According to IDeaS, this outsourcing of pricing decisions can occur automatically or through minimal human intervention (e.g., using an "upload all" button), depending on the management software used by the hotel operator. The Hotel Defendants are not merely passive recipients of the RMS Defendants' pricing. The decision to share competitively sensitive business data and accept supra-competitive pricing, with the knowledge that one's competitors are doing the same, always resides with the Hotels. The RMS Defendants and the Hotels play different roles, but they are equal and active partners in the horizontal conspiracy to raise room prices. The conspiracy could not function without the active participation of both.

49. IDeaS' RMS updates and optimizes price recommendations on a continuous basis. As soon as the software detects a change in market conditions (which is often triggered by its analysis of non-public data shared by users), the RMS immediately and automatically updates its recommendations to reflect the change. These pricing updates can occur several times per day and are almost always adopted automatically by the Hotel Defendants.

50. IDeaS prominently and expressly markets the ability of its RMS to handle pricing decisions for hotel operators. For example, in its 'Buyers Guide to Hospitality Revenue Management Solutions,' IDeaS explains: "Revenue management solutions can help [hotel operators] by providing dependable—and automated—pricing decisions"¹⁰

¹⁰ <https://ideas.com/tools-resources/hospitality-revenue-management-buyers-guide/>

51. IDEaS thus makes the price-fixing capabilities of its RMS explicit, describing the algorithm as “technology that produces insights without prompting and makes necessary price changes without you watching over it”

52. In its brochure marketing G3 RMS, IDEaS makes the following claims:

- Welcome to the world’s most advanced revenue management system, powered by revenue science, advanced analytics and machine learning. Get ready to embrace the full benefits of automation, with accuracy you can count on and decisions you can take to the bank.
- Powered by SAS High Performance Analytics, G3 RMS automates pricing, [room] restrictions and overbooking decisions to maximize RevPAR and help you focus on what’s important.
- IDEaS G3 RMS transforms the right data into clear and actionable insights so you can: Fully automate distribution and revenue management tasks allowing you to focus on expectations, critical dates, and more.
- Automation: Continually learns and adapts to how pricing and controls impact booking patterns and demand to improve outputs. Decisions are seamlessly distributed to key technology systems.¹¹

53. IDEaS has made similar statements in other marketing materials. In an article discussing the “Science Behind G3 RMS,” IDEaS explained that “[f]ull automation eliminates the possibility for user error, creates a framework where our RMS can react as conditions change, and limits the need for human resource consumption.”¹² It further explained that its RMS was able to “improve upon itself . . . without human intervention” and that its “groundbreaking artificial intelligence” allowed it to “autocorrect, individually, as needed and continuously learn about the property” without human intervention so that users have “more time back in their day.”

54. Industry observers see that outsourcing pricing to IDEaS is central to its RMS. *Hotel Tech Report*, a leading research platform for the hotel industry, explained that “[a]utomation is at the core of the IDEaS approach to revenue management. . . . The best part of

¹¹<https://ideasservices.wpenginepowered.com/wp-content/uploads/2020/06/IDEaS-G3-RMS-Brochure-EE.pdf>.

¹² <https://ideas.com/science-behind-g3-rms/>

[its pricing model] is that it all happens in real time and in the background, so revenue managers can focus on tactics and strategy rather than manual data entry.”¹³

2. IDeaS Generates Pricing Based on Non-Public, Competitively Sensitive Data from the Hotel Defendants.

55. IDeaS’ RMS provides users with recommended prices for every type of hotel room on a daily basis. To generate these recommendations, IDeaS collects the Hotels’ operators’ highly granular non-public, competitively sensitive, real-time data, which typically includes each Hotel’s transaction-level data for every booking or attempted booking (e.g., a request to book a sold-out room). IDeaS cannot obtain comparable real-time data from any other source.

56. IDeaS uses this non-public information to gain clearer insights into its users’ businesses and the hotel room rental market as a whole, enabling IDeaS to make pricing recommendations that increase users’ revenue by 8-15%.

57. The Hotel Defendants provide at least the following non-public data to IDeaS:

- Historical and real-time non-public pricing, which represents a large percentage of sales, including those for discounted bookings, group bookings, membership bookings, and extended-stay bookings;
- Historical and real-time occupancy levels by hotel property and room-type;
- Historical and real-time occupancy levels by customer type, including group, retail, discount, wholesale, etc.;
- Interactions with consumers that do not result in transactions (e.g., requests made for sold-out rooms);
- Real-time changes to prices across different platforms;
- Real-time and forecasted revenue by hotel property and room type;
- Other revenue by hotel property and guest for amenities like spa, dining, and golf, identified by hotel; and dates of special events.

¹³ <https://hoteltechreport.com/news/6-powerful-ideas-g3-rms-features%20>

58. IDEaS uses the non-public data it receives from its users to generate its supra-competitive price recommendations. IDEaS widely publicizes this fact. For example, Stephen Hambleton, Director, Product Management and Solution Success for IDEaS, stated:

IDEaS' proven approach folds all key data sources directly into optimization (*competitor pricing, for example is accounted for in optimization, as opposed to applying it simply as pricing rules after the RMS sets a price*), optimizes all room types optimally, and avoids rules in doing so. IDEaS favors an accurate dynamic programming-based optimization, as opposed to simpler deterministic approaches that assume the demand forecast and other calibrations and assumptions are perfect.¹⁴

59. Likewise, IDEaS includes the following statements in its brochure for G3 RMS:

G3 RMS leverages superior analytics to determine the optimal price for all key products by room type, (e.g., Best Flexible Rate and Advance Purchase). This approach considers the demand profile of the product, *competitors' influence* and their impact on other products.

MARKET DEMAND: *Automatically weights the true influence of competitors' pricing, future demand* and data such as TravelClick Demand360 and more on hotels' pricing to produce the most accurate forecast.¹⁵

60. Similarly, when explaining how its RMS can be implemented for new hotels with no historical data, IDEaS explained it uses its "Limited Data Build" feature to generate price recommendations by "clon[ing] data from existing hotels with similar business mixes to provide baselines for demand and predicted guest behavior."¹⁶

61. According to *Hotel Tech Report*:

Through artificial intelligence and machine learning, [IDEaS' RMS] makes precise revenue management decisions that most revenue managers would never be able to see. Ideal Pricing uses deep market intelligence, such as search penetration, competitor rates, booking trends, and reputation scores, to intelligently forecast demand and power a continuous pricing model.¹⁷

¹⁴ <https://ideas.com/science-behind-g3-rms>.

¹⁵ <https://ideasservices.wpenginepowered.com/wp-content/uploads/2020/06/IDEaS-G3-RMS-Brochure-EE.pdf>

¹⁶ <https://hoteltechreport.com/news/6-powerful-ideas-g3-rms-features%20>

¹⁷ <https://hoteltechreport.com/news/6-powerful-ideas-g3-rms-features%20>

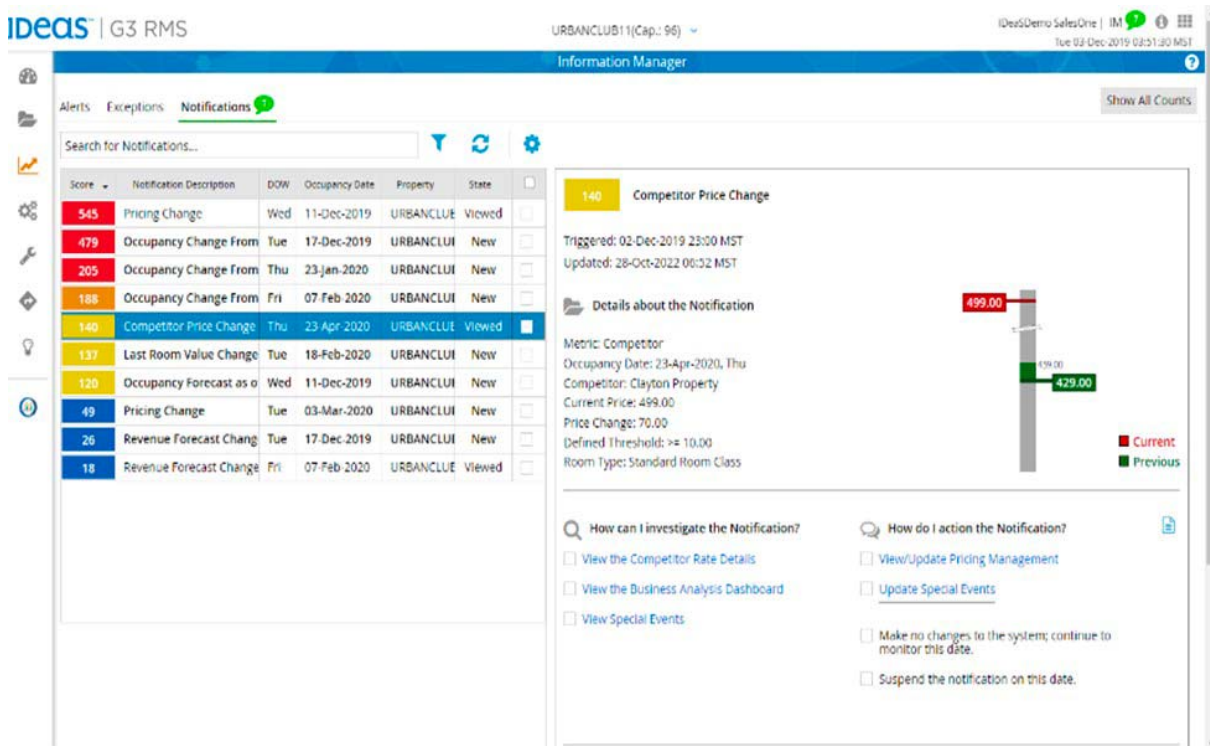
62. *Hotel Tech Report* also provides the following diagram that identifies the inputs used by IDEaS' RMS to generate pricing recommendations, including competitor data:



3. IDEaS Shares Competitor Data with Users, both Directly and through Pricing Recommendations.

63. IDEaS shares each Hotel Defendant's commercially sensitive, real-time data on prices and occupancy rates with the other Hotel Defendants. This often includes real-time price changes by identified competitors.

64. For example, the following diagram shows an IDEaS G3 RMS dashboard which provides one user with information about a direct competitor's price changes. The user selected the "Notifications" tab and then the "Competitor Price Change" notification. The right side of the diagram shows that, when making these selections, IDEaS provides the user with transaction-level data about a competitor's price change, including the specific competitor that changed its prices, named Clayton Property, the exact change in price (\$70 change from \$429 to \$499), the room type for the price change (Standard Room), and the date of the consumers' stay (4/23/2020). By providing real-time or near-real-time visibility into horizontal competitors' pricing, IDEaS' RMS enables the Hotel Defendants to ensure that their own pricing keeps pace with their co-conspirators' supra-competitive pricing and enforces discipline on any co-conspirators who attempt to gain market share by underpricing the other Hotel Defendants.



65. Likewise, a user of Choice’s app, which is powered by IDEaS, explained that the app “[m]akes price management so much easier. Get alerts about my competitors’ changes and it fits in my schedule.”

66. In addition to distributing non-public, competitively sensitive data to its users, IDEaS also indirectly shares such data with users through their pricing recommendations. As highlighted above, IDEaS analyzes competitor data to make these recommendations and adjusts them in real time based on the competitors’ real-time data. For example, if real-time user data indicates a spike in demand for the “double deluxe” room type in the Miami market, then IDEaS will automatically increase the recommended price for that room type.

C. Hotel Defendants Have Agreed to Fix Hotel Room Rates by Outsourcing Pricing Decisions to IDEaS, which Shares the Hotels’ Competitively Sensitive Information.

67. Through their common use of IDEaS’ RMS and its algorithm, Hotel Defendants agreed and conspired to share non-public price and occupancy information and to delegate pricing decisions to a common agent—IDEaS. This collusion effectively deprives the Relevant

1 Sub-markets of independent pricing by competitors and allows the Hotels to profit from
2 cooperative and coordinated overcharges for hotel rooms in the Relevant Sub-markets.

3 68. To receive the benefit of IDEaS' supra-competitive pricing, Hotel Defendants
4 must pay IDEaS a fee. In exchange, IDEaS promises the Hotel Defendants revenue increases that
5 exceed competitive market levels by as much as 36%.¹⁸ All Defendants knowingly participate in
6 this unlawful conspiracy and profit from it. The losers are Plaintiff and the Class members who
7 are forced to pay inflated prices for hotel rooms affected by the conspiracy.

8 69. The Hotel Defendants have thereby agreed to use IDEaS' platform to collude and
9 to collectively delegate their pricing decisions to IDEaS. The Hotels have agreed to submit, and
10 do submit, their non-public transaction-level data to IDEaS knowing that IDEaS will analyze it
11 together with their competitors' data to generate pricing recommendations for them and their
12 competitors. Hotel Defendants also know they would receive, and do receive, competitors'
13 transaction-level data directly from IDEaS. Therefore, IDEaS connects the Hotels in a unity of
14 purpose and common design and understanding to fix hotel room prices.

15 70. The Hotel Defendants adopt IDEaS' pricing recommendations in nearly every
16 instance, knowing their competitors are doing the same. For example, Douglas Lisi, Vice
17 President of Revenue Management for Choice, stated: "Franchisees are at the core of everything
18 Choice Hotels does, and we are committed to helping them along the road to economic recovery
19 and beyond. This is why we've launched our new revenue management system, ChoiceMAX
20 powered by IDEaS, to help our hoteliers optimize their pricing structure and ultimately increase
21 revenue production. To date, 93 percent of pricing recommendations from ChoiceMAX have
22 been accepted by properties, and the reception of ChoiceMAX among franchisees has been
23 overwhelmingly positive."¹⁹

24 71. The Hotel Defendants know which of their competitors are participating in the
25 conspiracy. As alleged above, they receive specific, non-public information about competitors
26 that demonstrates those competitors' willing participation in the scheme. IDEaS also openly
27

28 ¹⁸ <https://ideas.com/success-story/the-burrard/>.

¹⁹ <https://hoteltechreport.com/news/choice-hotels-international-ideas>

publicizes the identity of the hotel operators using its RMS, including by issuing press releases when executing agreements with hotel operators,²⁰ providing numerous testimonials on its website from participating hotel operators,²¹ and listing users in marketing materials, such as the following graphic found in the G3 RMS brochure:

Leading Hotels Trust IDEaS



72. As a direct result of the Hotel Defendants' adherence to the conspiracy and use of supra-competitive price recommendations, their room rates have increased to record levels and their occupancy rates are artificially low, remaining at or below pre-Covid levels. The Hotels know that participating in the conspiracy and implementing IDEaS' pricing recommendations lower occupancy rates. As the following diagram demonstrates, IDEaS provides users with forecasted occupancy rates based on its recommended prices:



²⁰ <https://ideas.com/news/hyatt-will-deploy-ideas-platform/>

²¹ <https://ideas.com/client-success/>

73. IDEaS pressures its users not to deviate from its price recommendations. IDEaS repeatedly stresses that its automated recommendations outperform human intervention. For example, IDEaS makes the following claims in an article by IDEaS explaining how G3 works:

The groundbreaking artificial intelligence in G3 RMS allows each implementation to autocorrect, individually, as needed and continuously learn about the property at which it's installed (and how its controls are impacting in the market it is supporting), applying and adjusting models to produce the best results. *Humans needn't be involved* in deciding which models and parameters are selected or how data is incorporated. *These are areas a well-designed solution will always perform best*, and it's these automated processes, combined with performance simulations and academic research (not forgetting peer review), that give our users *more confidence in the system's decisions* and more time back in their day—and drive more profit for their hotels.

* * *

Gotta Have Faith

Science can be fascinating and awe inspiring, but day-to-day progress can be hard to recognize (that said, I am always very passionate about it and always welcome your questions!). The scientific process takes time. It requires rigor and due process, and it can sometimes take time to bring algorithms that inspire confidence to bear, especially when they are applied to thousands of properties' business decisions. And at IDEaS, we wouldn't have it any other way. This type of process is critical in this space, and we do not take our clients' trust for granted.

We are responsible for the performance of our solutions and, ultimately, the success of our clients. That's why we don't cut corners, and *we certainly don't leave anything to chance or human intuition—no offense, humans*. Because of these guiding principles, an IDEaS RMS is future-proof, fully automated, and truly science-backed. And even if all of that still isn't convincing enough for you, the real proof is in the ROI.²²

74. IDEaS further pressures users to adopt its pricing recommendations through support teams that proactively stress the importance of adopting the pricing recommendations, for example during scheduled support calls with IDEaS RMS users.

75. IDEaS has constructed its RMS to disincentivize any deviation from its pricing recommendations. According to an industry revenue management consultant, IDEaS designed

²² <https://ideas.com/science-behind-g3-rms/>

G3 RMS to ensure that “every action in G3 causes a ripple effect on everything else” so, as a result, “users are less inclined to manually override system generated [pricing].”

76. IDEaS also deters deviations by tracking manual overrides of pricing recommendations. The following diagram shows an IDEaS RMS interface in which a pricing override is recorded under the “Exceptions” tab:

IDEaS™ G3 REVENUE MANAGEMENT SYSTEM

Information Manager | Dashboards | Reports | Forecasts | Decisions | Configure | Function Space | Support | **sight**

Information Manager

Alerts 5 | **Exceptions 11** | Notifications 18

Search for Exceptions...

State	Score	Exception Description	Occupancy Date	Property
	20	Lack of Straight Line Availability	25-Jun-2013	PALACE22
	20	Lack of Straight Line Availability	25-Jun-2019	PALACE22
	20	Costly Out-of-Order Rooms	01-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	02-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	03-Jul-2019	PALACE22
	20	Pricing override below LRV	03-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	04-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	05-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	06-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	07-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	08-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	09-Jul-2019	PALACE22
	20	Costly Out-of-Order Rooms	10-Jul-2019	PALACE22

20 Pricing Override is Below the Last Room Value

Details about the Exception

Occupancy Date: 03-Jul-2019

Length of Stay	
LOS1	BAR5/259.00

How do I action the Exception?

☐ [View the Business Analysis Dashboard](#)

☐ [View/Update Pricing Management](#)

☐ Make no changes to the system; continue to monitor this date.

☐ Suspend the exception on this date.

Exception History

State	Score	Description
Viewed	20	Viewed
Viewed	20	Viewed
New	20	Created

77. As the diagram above illustrates, whenever a user overrides a pricing recommendation and instead prices a hotel room “Below the Last Room Value,”²³ IDEaS catalogs this and creates an “Exception” tab. This feature allocates an exception score to the

²³ IDEaS defines “Last Room Value” as “[t]he maximum amount of room revenue a hotel can expect to make from the last room available for sale. The system uses LRV as a restriction control for low value rates during busy periods and opens all rates during slow times.” https://ideas.com/tools-resources/hotel-glossary-terms/#letter_L

pricing decision and gives the user ways to “action the Exception.” This includes the option of “Suspend[ing] the exception on this date.”

78. IDEaS’ RMS also includes internal restrictions and controls to discourage users from lowering prices. For example, IDEaS discloses that its system “uses [Last Room Value] as a restriction control for low value rates during busy periods”²⁴

79. In the few instances where Hotel Defendants deviate from IDEaS’ pricing recommendations, they still use the pricing recommendations as a starting point to set prices. Therefore, even where Hotel Defendants do not implement IDEaS’ exact pricing recommendations, their agreement to use IDEaS’ RMS and pricing algorithm still dictates the benchmark for fixing hotel room rates at supra-competitive levels and delegates key aspects of price setting to a shared agent.

80. Hotel Defendants also are strongly incentivized to implement IDEaS’ pricing recommendations. The Hotel Defendants spend significant sums of money to purchase and deploy IDEaS’ RMS, the central feature of which is IDEaS’ pricing recommendations. The Hotels would not continue to spend significant sums of money if they were not relying on IDEaS’ pricing recommendations. Likewise, IDEaS’ RMS clients would not retain IDEaS at a 98% percent rate unless they are using the product for its intended purpose—pricing recommendations.²⁵

81. The Hotel Defendants also know that cooperation is essential to the success of their conspiracy and their ability to impose anticompetitive room rates. The Hotels are reaping significant benefits from the conspiracy, as during the conspiracy they are generating record revenues via historically high room rates. The Hotel Defendants are, therefore, strongly incentivized to continue to adhere to IDEaS’ pricing recommendations.

82. Because IDEaS’ RMS and algorithm function as a shared pricing agent for Hotel Defendants, they do not need to communicate directly with the other co-conspirator hotel operators. Instead, IDEaS furnishes the information each needs to agree to and effectuate the

²⁴ https://ideas.com/tools-resources/hotel-glossary-terms/#letter_L

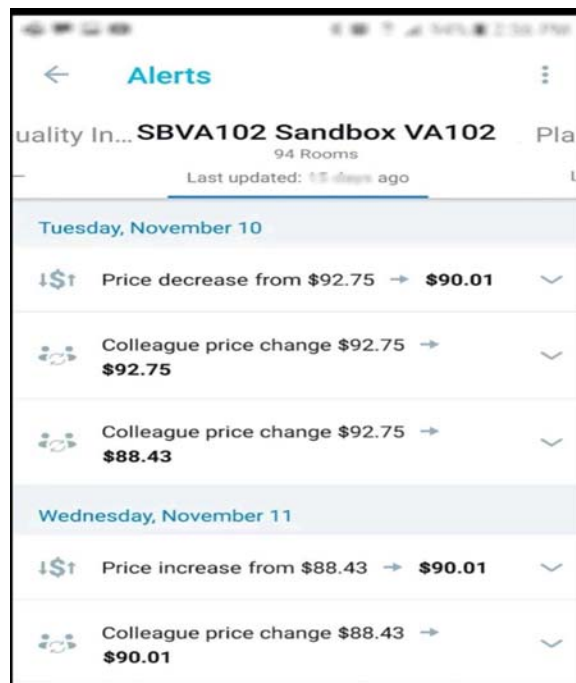
²⁵ <https://ideasservices.wpenginepowered.com/wp-content/uploads/2020/06/IDEaS-G3-RMS-Brochure-EE.pdf>

conspiracy, including the identity of the participating competitors and the prices they are charging.

D. Hotel Defendants' Parallel Pricing Evinces Their Conspiracy.

83. As a consequence of Defendants' conspiracy, prices charged by the Hotel Defendants have moved in parallel throughout the Class Period.

84. The following screenshot was taken from an app powered by IDEaS and operated by a Hotel Defendant or co-conspirator.²⁶ It shows the IDEaS user receiving real-time information about price changes executed by a competing property, to which the user responds by implementing identical price changes shortly thereafter.



85. Hotel Defendants have colluded to achieve complex and historically unprecedented parallel changes to room prices. Following the pandemic and during the Class Period, the Hotel Defendants increased room rental rates to their highest all-time level, surpassing pre-pandemic levels. This occurred with no corresponding increase in demand. Occupancy levels remained at or below pre-pandemic levels. These unprecedented,

²⁶ On information and belief, the screenshot came from Choice's app but Plaintiff is not yet able to conclusively confirm this.

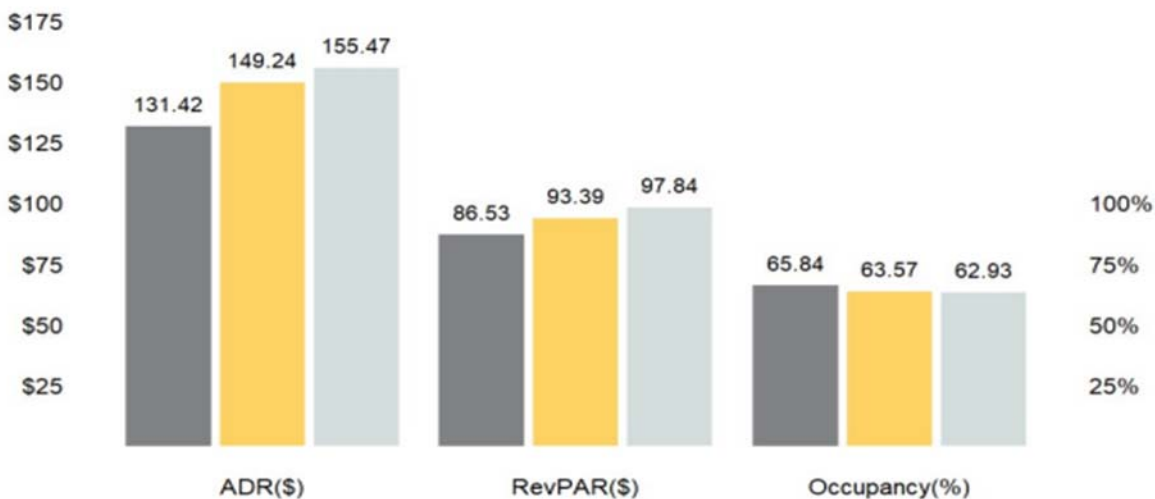
simultaneous parallel changes in prices by all Hotel Defendants are the result of their adoption and adherence to IDEaS' recommendations for maximizing RevPAR and ADR, the intended result of the Hotel Defendants' conspiracy to outsource pricing decisions to IDEaS.

86. The following chart highlights the delinking of price and demand in the U.S. hotel industry. As it illustrates, the ADR for hotel rooms in the U.S. has increased nearly 20% since before the pandemic and nearly 5% since 2022 even though occupancy is down almost 3% and 1% respectively.²⁷

2023 Highlights: Predictions vs. Outcomes CONTINUED

U.S. Hotels Performance

Annual, Average



Source: Oxford Economics and STR

2019 2022 2023

E. Hotel Defendants' Parallel Pricing Is an Effect of the Conspiracy, Not Independent Conduct.

87. Hotel Defendants' simultaneous usage of IDEaS' RMS and its pricing algorithm strongly implies that the parallel pricing patterns observed in hotel room rates is the result of a collusive conspiracy rather than the product of independent pricing decisions. "In some situations, the evidence may disclose cooperative conduct among the defendants—such that a 'combination' of competitors joining together their decision-making can be inferred from their

²⁷ https://www.ahla.com/sites/default/files/SOTI.2024.Final_.Draft_.v4.pdf

cooperative actions”—in particular, where there is “an invitation proposing collective action followed by a course of conduct showing acceptance[.]” U.S. Dep’t of Justice, Memorandum of Law in Support of the Statement of Interest of the United States, Nov. 15, 2023, *In re: RealPage, Rental Software Antitrust Litigation* (No. II), No. 3:23-MD-3071 (M.D. Tenn.), ECF No. 628 (urging denial of motions to dismiss Section 1 claims alleging a scheme by a group of owners of rental housing to outsource their pricing decisions to an RMS offered by RealPage, Inc.).

88. IDEaS’ RMS and algorithm provide the Hotel Defendants with a forum offering a ready and continuing opportunity to collude. Once the express invitation to collude made by IDEaS in its marketing materials was accepted, Hotel Defendants gained unlimited opportunities to collude as participants on the platform and in various user-group forums offered by IDEaS. IDEaS directly coordinates user-only events for the purpose of “directly engag[ing] with [] clients as [they] continue to shape the future of hospitality—together.”²⁸

89. The Hotel Defendants also attended other user meetings and summits run, sponsored, or promoted by IDEaS. According to IDEaS, these client summits are intended to provide the co-conspiring Hotels with “insights and best practices on optimizing multi-unit revenue management performance; the power of analytics and how best prices are determined; [...] to showcase how IDEaS consolidates hotel data to deliver total profit optimization.”²⁹ IDEaS bestows awards to its clients at these meetings for the purpose of “honoring individuals for their collaboration, partnership, bold thinking and mutual support of progress and innovation.”³⁰

90. For example, IDEaS hosts multiple “Converge” revenue summits each year. For its July 2024 conference in Miami, Florida, IDEaS proudly announced that attendees will “Join 300+ Global Hospitality Executives to Discuss the Future of Revenue Management.”

²⁸ <https://www.hospitalitynet.org/news>.

²⁹ <https://www.hospitalitynet.org/news/4111666.html#:~:text=insights%20and%20best,total%20profit>.

³⁰ <https://ideas.com/client-award-recipients>.

1 91. IDeaS is also a preferred partner, sponsor, and/or presenter at conferences on
2 hotel revenue management. For example, IDeaS was a sponsor and presenter at the “Navigate”
3 conference in April 2024, which was attended by executives from several of the top hotel
4 operators. Jeff Roark, Director of Sales at IDeaS, offered a presentation there on the following
5 topic: “Maximize your revenue potential: Exploring the power of AI in revenue optimization
6 presented by IDeaS.”³¹

7 92. Through the actions described herein, Hotel Defendants have been and are acting
8 against their economic self-interests but for the conspiracy. The Hotels could not have
9 profitably implemented the pricing recommendations from IDeaS unless their co-conspirators
10 were doing the same. As explained above, Hotel Defendants are charging record-high prices
11 without a corresponding increase in occupancy (demand) to justify the lofty prices. Acting
12 independently, the Hotels would not and could not achieve these supra-competitive prices
13 because competitors would rapidly undercut them to gain revenue.

14 93. Similarly, sharing confidential information with IDeaS would be contrary to each
15 Hotel Defendant’s self-interest but for the conspiracy. The Hotels are willing to send IDeaS
16 their non-public, transaction level data on prices and occupancy only because they are secure in
17 knowing IDeaS shares the same information of their competitors and uses it to calculate pricing
18 recommendations for the mutual benefit of all the Hotel Defendants. If the Hotels were not
19 engaged in a conspiracy to exchange this information, then they would be competitively
20 disadvantaged and would not do so.

21 94. The Hotel Defendants have strong incentives to collude. Hotel operators suffered
22 unexpected and massive reductions in revenue during the Covid-19 pandemic. In 2020 alone,
23 hotel industry revenue dropped by nearly 50%. Hotel Defendants, therefore, had a unique and
24 strong motive to conspire during the Class Period.

25 95. IDeaS also provides Hotel Defendants with a strong motive to collude. IDeaS
26 claims to increase revenue for hotel operators by 8-15% by engaging in the conspiracy.

27
28
³¹ <https://www.revinate.com/navigate/2024-miami/agenda/>

1 Additionally, the more faithfully co-conspirators adopt IDEaS' pricing recommendations, the
2 more revenue and profit they will earn.

3 96. The dynamics of the hotel room rental industry further contribute to the
4 conspiracy. Hotel operators face extremely high barriers to entry and expansion. Any business
5 seeking to enter the hotel market must dedicate enormous amounts of time and financial
6 resources. It costs tens of millions, sometimes hundreds of millions of dollars to construct a
7 hotel. And it can take several years to acquire the necessary approvals and permits from state
8 and local governments to build a hotel. Existing hotel operators seeking to expand face similar
9 barriers of high costs and obtaining additional government approvals and permits.

10 97. Demand for hotel rooms is inelastic. Consumers generally rent hotel rooms
11 because they are traveling to a specific location for an event or attraction and are only willing to
12 travel a limited distance from their hotel to the event or attraction. Consumers' choices are
13 therefore limited to hotels in proximity to the event or attraction. As a result, hotel markets are
14 susceptible to, and cannot discipline against, cartel price fixing.

15 **F. Federal Antitrust Authorities Have Identified the Harm Caused by**
16 **Algorithmic Pricing.**

17 98. Federal antitrust regulators have described in detail the concerns raised by the
18 type of algorithmic pricing platform operated by Defendants. The former Acting Chair of the
19 Federal Trade Commission, Maureen Ohlhausen, described how outsourcing price-setting to
20 algorithms is precisely the type of agreement prohibited by antitrust law. She provided the
21 following hypothetical:

22 What if algorithms are not used in such a clearly illegal way, but instead
23 effectively become a clearing house for confidential pricing information? Imagine
24 a group of competitors sub-contracting their pricing decisions to a common,
25 outside agent that provides algorithmic pricing services. Each firm communicates
26 its pricing strategy to the vendor, and the vendor then programs its algorithm to
27 reflect the firm's pricing strategy. But because the same outside vendor now has
28 confidential price strategy information from multiple competitors, it can program
its algorithm to maximize industry-wide pricing. In effect, the firms themselves
don't directly share their pricing strategies, but that information still ends up in
common hands, and that shared information is then used to maximize market-
wide prices.

Again, this is fairly familiar territory for antitrust lawyers, and we even have an old fashioned term for it, the hub-and-spoke conspiracy. Just as the antitrust laws do not allow competitors to exchange competitively sensitive information directly in an effort to stabilize or control industry pricing, they also prohibit using an intermediary to facilitate the exchange of confidential business information.

Let's just change the terms of the hypothetical slightly to understand why. Everywhere the word "algorithm" appears, please just insert the words "a guy named Bob."

Is it ok for a guy named Bob to collect confidential price strategy information from all the participants in a market, and then tell everybody how they should price? If it isn't ok for a guy named Bob to do it, then it probably isn't ok for an algorithm to do it either.³²

99. IDeaS is "Bob" in this hypothetical. IDeaS collects confidential information from each Hotel Defendant and then uses that information to generate pricing recommendations that the Hotels consistently implement.

100. Likewise, in the DOJ Memorandum of Interest in RealPage, the DOJ explained that Section 1 of the Sherman Act condemns collaborations that eliminate independent decision making in the market—regardless of how they are brought about. This includes prohibiting "competitors from fixing prices by knowingly sharing their competitive information with, and then relying on pricing decisions from, a common human pricing agent who competitors know analyzes information from multiple competitors. The same prohibition applies where, as here, the common pricing agent is a common software algorithm."³³ Based on its analysis, the DOJ concluded that this type of behavior was per se unlawful under Section 1 of the Sherman Act. The Hotel Defendants and IDeaS are engaging in precisely such conduct here.

101. In an action challenging shared algorithm pricing for casino hotels, the DOJ recently filed a Statement of Interest of the United States stressing that such "Algorithmic Price

³² Maureen K. Ohlhausen, *Should We Fear The Things That Go Beep In the Night? Some Initial thoughts on the Intersection of Antitrust law and Algorithmic Pricing*, Federal Trade Commission (May 23, 2017),

*https://www.ftc.gov/system/files/documents/public_statements/1220893/ohlhausen_-_concurrences_5-23-17.pdf

³³ U.S. Dep't of Justice, Memorandum of Law in Support of the Statement of Interest of the United States, Nov. 15, 2023, *In re: RealPage, Rental Software Antitrust Litigation (No. II)*, No. 3:23-MD-3071 (M.D. Tenn.), ECF No. 628.

Fixing is a Per Se Violation of Section 1.”³⁴ The DOJ explained that, under longstanding and well-established Supreme Court precedent, concerted action can be alleged by showing defendants knew “concerted action was contemplated and invited” and “the [competitors] gave their adherence to the scheme and participated in it.” The DOJ also wrote to ensure that the court understood two important concepts relevant to the case: (1) Section 1 reaches tacit as well as express agreements and prohibits competitors from delegating key aspects of pricing decision-making to a common entity, even if the competitors never communicate with one another directly; and (2) an agreement among competitors to fix the starting point of pricing is per se unlawful even if the prices the competitors ultimately charge deviate from it.

G. Defendants’ Conspiracy Harms Consumers and Competition

102. Defendants’ agreements, conspiracy, and collusive conduct substantially injure competition in the Relevant Sub-markets. Instead of making independent decisions on prices and occupancy rates, the Hotel Defendants and their co-conspirators have outsourced these decisions to IDeaS as a common decision-maker. This collusion eliminates price competition in the Relevant Sub-markets, enabling the Hotel Defendants to charge supra-competitive prices. As a result, Plaintiff and Class members have paid and are continuing to pay higher prices for hotel rooms than they otherwise would pay had Defendants not engaged in their conspiracy.

103. IDeaS repeatedly touts that use of its RMS and algorithm will lead to significantly more revenue for hotel operators than they would generate under normal competitive market conditions. According to IDeaS, hotel operators using its RMS and pricing algorithm earn 15% higher revenues on average compared to hotel operators that do not use its RMS or a similar platform.

104. IDeaS users also admit they have been able to charge significantly higher prices enabled by their use of IDeaS’ RMS. According to Stefano Fusaro, Assistant Hotel Manager at the Grand Hotel Minerva, “we sold rates that I would have never published if I hadn’t been

³⁴ U.S. Dep’t of Justice, Statement of Interest of the United States, Mar. 28, 2024, *Cornish-Adebiyi, et al., v. Caesars Entertainment, Inc., et al.*, Case No. 1:23-cv-02536-KMW-EAP (D. N.J.), ECF No. 96.

1 working with IDeaS. In August, for example, we had revenues +16% versus last year and 8%
2 over budget.”

3 105. Furthermore, through its use of disaggregated, non-public data from multiple
4 competitors, IDeaS can identify demand characteristics that allow it to suggest room prices
5 contradicting common economic intuition. For example, one hotel operator explained how
6 IDeaS’ RMS in one instance allowed them to sell smaller hotel rooms at higher rates than larger
7 rooms with more amenities because IDeaS detected a surge in demand for the smaller rooms.

8 106. The harm to competition and injury to consumers caused by Defendants unlawful
9 conduct will worsen over time. IDeaS’ algorithm is constantly learning and becoming more
10 adept at setting supra-competitive prices as it receives additional data. Therefore, as long as
11 users continue to provide IDeaS with non-public, transaction-level data, the algorithm’s
12 recommended prices will become increasingly proficient at overcharging hotel guests.

13 **VI. MARKET DEFINITION**

14 107. The described conduct of Defendants constitutes an unlawful conspiracy to fix,
15 raise, stabilize, or maintain artificially high rental prices for hotel guest rental rooms across the
16 United States and is therefore illegal per se under Section 1 of the Sherman Act.

17 108. If the Court declines to apply the per se rule, then Defendants’ conduct should be
18 condemned based on a quick-look analysis of the obvious anticompetitive effects of their
19 conspiracy. Under either the per se or quick-look standard, Plaintiff need not prove that
20 Defendants had market power in any defined antitrust market.

21 109. To the extent the Court alternatively applies the rule of reason, then the relevant
22 product market is the market for hotel room rentals by the public.

23 110. The relevant geographic markets are: the Atlanta–Sandy Springs–Roswell, GA
24 MSA; the Baltimore–Columbia–Towson, MD MSA; the Boston–Cambridge–Newton, MA–NH
25 MSA; the Chicago–Naperville–Elgin, IL–IN–WI MSA; the Dallas–Fort Worth–Arlington, TX
26 MSA; the Houston–Pasadena–The Woodlands, TX MSA; the Las Vegas–Henderson–North Las
27 Vegas, NV MSA; the Los Angeles–Long Beach–Anaheim, CA MSA; the Miami–Fort
28 Lauderdale–West Palm Beach, FL MSA; the New Orleans–Metairie, LA MSA; the New York–

1 Newark-Jersey City, NY-NJ MSA; the Orlando-Kissimmee-Sanford, FL MSA; the Phoenix-
2 Mesa-Chandler, AZ MSA; the San Diego-North County-Chula Vista, CA MSA; the San
3 Francisco–Oakland–Fremont, CA MSA; the Seattle-Tacoma-Bellevue, WA MSA; and the
4 Washington-Arlington-Alexandria, DC-VA-MD-WV MSA.

5 111. Hotel Defendants and their co-conspirators collectively enjoy market power in
6 each of the Relevant Sub-markets. Hilton, Choice and Wyndham are three of the five largest
7 hotel operators in the United States, which is significant given that the domestic hotel market is
8 concentrated. Hyatt, Four Seasons, Omni and co-conspirator Accor are also sizeable participants
9 in the Relevant Sub-markets. IDEaS also provides pricing recommendations to tens of thousands
10 of other properties in the United States, generating tens of millions of booking
11 recommendations daily.

12 112. MSAs are core-based statistical areas associated with at least one urban area that
13 has a population of at least 50,000. The MSA comprises the central county or counties or
14 equivalent entities containing the core, plus adjacent outlying counties having a high degree of
15 social and economic integration with the central county, or counties as measured through
16 commuting.

17 113. The Relevant Sub-markets include all reasonable substitutes. Consumers do not
18 consider hotel rooms outside of a Relevant Sub-market to be a substitute for hotel rooms inside
19 it. Industry experts recognize that hotels are differentiated products based on location. Each
20 Relevant Sub-market is a major US metropolis offering unique attractions. Consumers stay in
21 hotels in these cities and pay the available rates because they want to stay in that specific
22 location. Stated differently, consumers who are indifferent to location do not stay in hotels in
23 the Relevant Sub-markets and opt instead for lower cost options in smaller cities. A consumer
24 faced with a small but significant non-transitory increase in price (a “SSNIP”) in a Relevant
25 Sub-market would not switch to a hotel located outside of that market. A family visiting
26 Chicago, for example, would not switch to a hotel in Champaign, Illinois in response to a
27 SSNIP.
28

114. Consumers also do not consider other short-term rental options as substitutes for hotel rooms. Hotels offer a unique bundle of location, amenities, and services not available from platforms such as Airbnb or Vrbo that offer short-term residential rentals. Because hotels offer a different product than other short-term rental options, industry participants do not consider hotels to be direct competitors of other short-term rental options. Notably, in spite of price increases in the Relevant Sub-markets over the past couple of years that were far greater than the five percent magnitude assumed in the standard SSNIP exercise, consumers did not switch to other short-term rental options in numbers large enough to make these price increases unprofitable. Thus, consumers would not switch to other short-term rental options if faced with a SSNIP in hotel room rates in the Relevant Sub-markets.

115. While Plaintiff has identified the foregoing Relevant Sub-markets, he anticipates that discovery and expert analysis will lead to the addition of additional markets because Hotel Defendants operate nationwide.

VII. CLAIM

COUNT I

Violation of the Section 1 of the Sherman Act

(On Behalf of Classes for Injunction and Equitable Relief and Compensatory Damages)

116. Plaintiff incorporates and realleges each and every allegation set forth in the preceding paragraphs of this Complaint as though fully set forth herein. He seeks equitable and injunctive relief on behalf of the National Class and trebled damages on behalf of the Rental Class.

117. Beginning at a time unknown to Plaintiff but at least since April 26, 2020, Defendants engaged in an ongoing agreement, contract, combination, or conspiracy to unreasonably restrain interstate trade and commerce in violation of Section 1 of the Sherman Act.

118. IDeaS created and operated its RMS, which applies an algorithm that analyzes data and generates pricing recommendations. IDeaS agreed with Hotel Defendants to generate pricing recommendations using non-public, competitively sensitive, real-time price and output data provided by the Hotel Defendants, co-conspirator hotel operators, and other sources. Hotel

Defendants agreed among themselves and with their co-conspirators to (i) provide Defendant IDEaS with competitively sensitive, non-public, real-time data concerning pricing and occupancy for every transaction, knowing that this information would be shared with competitors and analyzed with their competitors' data to generate pricing recommendations for each Hotel Defendant and co-conspirator; and (ii) implement the pricing recommendations generated by IDEaS. Defendants also agreed to disseminate Hotel Defendants' and co-conspirators' non-public, competitively sensitive data among competitors.

119. Defendants' combination or conspiracy has harmed competition nationally and in the Relevant Sub-markets and has caused anticompetitive effects that include supra-competitive prices and lower rates of occupancy. As a direct and proximate result of Defendants' unlawful combination or conspiracy, Plaintiff and Class Members have been injured and will continue to be injured by paying more for hotel rooms than they would otherwise pay in a fully competitive market not harmed by the anticompetitive effects of Defendants' conspiracy. The economic harm suffered by Plaintiff and the Class Members constitutes antitrust injury.

120. Defendants' conduct violates Section 1 of the Sherman Act, 15 U.S.C. § 1.

121. Plaintiff and Class Members are entitled to compensatory damages, treble damages, attorneys' fees and costs, and injunctive relief prohibiting Defendants from engaging in further violations of Section 1 of the Sherman Act, 15 U.S.C. § 1.

VIII. PRAYER FOR RELIEF

WHEREFORE, Plaintiff, for himself and on behalf of the Classes of others similarly situated, respectfully requests judgment against Defendants granting the following relief:

- A. Determining that this action may be maintained as a class action under Rule 23(a), (b)(2), and (b)(3) of the Federal Rules of Civil Procedure, appointing Plaintiff as Class Representative, and appointing counsel of record as Class Counsel;
- B. Finding that Defendants have violated Section 1 of the Sherman Act by engaging in the contract, combination and conspiracy alleged herein;
- C. Awarding damages to Plaintiff and Class members, including compensatory damages,

statutory treble damages, punitive damages, and pre- and post-judgment interest to the extent permitted by law;

- D. Temporarily enjoining Defendant IDeaS from collecting competitively sensitive information from market participants and disseminating that information to competitors, either directly or through pricing recommendations incorporating such information;
- E. Temporarily enjoining Hotel Defendants from delegating or outsourcing their pricing decisions to IDeaS;
- F. Permanently enjoining Defendant IDeaS from collecting competitively sensitive information from market participants and disseminating that information to competitors, either directly or through pricing recommendations incorporating such information;
- G. Permanently enjoining Hotel Defendants from delegating or outsourcing their pricing decisions to IDeaS;
- H. Awarding Plaintiff attorney's fees, expenses, and taxable costs to the extent permitted by law; and
- I. Ordering other relief as the Court deems just and proper.

IX. JURY DEMAND

Plaintiff demands trial by jury of all issues triable as of right.

DATED: June 7, 2024

HARTLEY LLP

/s/ Jason S. Hartley
 Jason S. Hartley, Esq. (SBN 192514)
 Jason M. Lindner, Esq. (SBN 211451)
 Hartley LLP
 101 West Broadway, Suite 820
 San Diego, California 92101
 Tel: (619) 400-5822
 hartley@hartleyllp.com
 lindner@hartleyllp.com

Benjamin J. Widlanski, Esq.
(Fla. Bar No. 1010644)
Robert J. Neary, Esq.
(Fla. Bar No. 81712)
**KOZYAK TROPIN &
THROCKMORTON LLP**
2525 Ponce de Leon Blvd., 9th Floor
Miami, Florida 33134
Tel.: 305-372-1800
Fax: 305-372-3508
bwidlanski@kttlaw.com
rn@kttlaw.com

Richard M. Paul III, MO#44233
Ashlea Schwarz, MO#60102
PAUL LLP
601 Walnut Street, Suite 300
Kansas City, Missouri 64106
Tel: 816-984-8100
rick@paulllp.com
ashlea@paulllp.com

Attorneys for Plaintiff